

WHAT IS CLAIMED IS:

1 2. Method for tracking at least one process using a socket object, where the at
2 least one process is utilized to execute an application program, the method comprising:
3 4. creating a process list for the socket object, where the process list contains a
4 5. process identifier for a first process using the socket object; and
5 6. updating, if a second process is using the socket object, the process list to
6 7. include the process identifier for the second process.

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9 2. The method of claim 1 wherein the process list is displayed on a user interface
10 in response to a user interface command entered by a user.

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12 3. The method of claim 1 wherein the step of updating comprises:
13 4. adding the process identifier of the second process to the process list if the
14 second process is to use the socket object.

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16 4. The method of claim 3 wherein the second process is to use the socket object if
17 a socket descriptor created for the socket object is passed from the first process to the
18 second process.

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20 5. The method of claim 1 wherein the step of updating comprises:
21 removing the process identifier of at least one of the first process and second process
22 from the process list if the at least one of the first process and second process no longer
23 uses the socket object.

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25 6. The method of claim 5 wherein the at least one of the first process and second
26 process no longer uses the socket object if a socket descriptor created for the socket
27 object is removed from the at least one of the first process and second process.

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29 7. The method of claim 1 wherein the step of updating comprises:
30 removing the process identifier of at least one of the first process and the
31 second process from the process list if the at least one of the first process and second
32 process expires.

8. The method of claim 1 wherein the first process comprises a Sockets Application Program Interface (API) function utilized to create the socket object.

9. The method of claim 8 wherein the Sockets API function comprises one of a socket () function, a socketpair () function and an accept () function.

10. The method of claim 1 wherein the creating and updating are performed by an operating system after a computer executes a sockets support program.

11. The method of claim 1 wherein the first process and the second process are provided in the same computer system.

12. The method of claim 1 wherein the first process and the second process are provided in different computer systems.

13. The method of claim 1 wherein the process identifier comprises at least one of a process name, a user name associated with the process name and a process number.

14. A method for administering network information, the method comprising:
displaying a user interface containing a list of socket objects used for a
computer system; and

providing a process list for a socket object selected by a user from the list of socket objects, where the process list contains a process identifier for at least one process using the selected socket object..

15. The method of claim 14 wherein each of the at least one process using the selected socket object comprises an active process using the socket object.

16. The method of claim 14 wherein each socket object in the list of socket objects is associated with a client computer communicating with a server computer.

17. The method of claim 14 wherein the process identifier comprises at least one of a process name, a user name associated with the process name and a process number.

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2 18. An apparatus for tracking at least one process of an application program using
3 a socket object, the apparatus comprising:

4 a memory for storing an operating system and a sockets support program; and
5 a processor, coupled to the memory, for performing a method upon executing
6 the sockets support program retrieved from the memory, the method comprising:
7 creating the process list for a socket object, where the process list
8 contains a process identifier for a first process using the socket object, and
9 updating, if a second process is using the socket object, the process list
10 to include the process identifier of the second process.

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12 19. The apparatus of claim 18 further comprising:

13 a network interface for coupling the socket object with a remote device.

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15 20. The apparatus of claim 18 further comprising:

16 a display device, coupled to the processor, for displaying the process list when
17 the processor retrieves and executes a user interface program from the memory.

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19 21. The apparatus of claim 18 wherein the operating system comprises one of
20 UNIX, IBM AIX, IBM OS/400 and Microsoft Windows.

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22 22. The apparatus of claim 18 wherein the network interface couples the first
23 process to the second process.

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25 23. A computer readable medium storing a software program that, when executed
26 by a processor of a computer, causes the computer to perform a method comprising:
27 creating a process list for a socket object, where the process list contains a
28 process identifier for a first process using the socket object; and
29 updating, if the second process is using the socket object, the process list to
30 include the process identifier of the second process.

1 24. The computer readable medium of claim 23 wherein the process list is
2 displayed on a user interface in response to a user interface command entered by a
3 user.

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5 25. The computer readable medium of claim 23 wherein the step of updating
6 comprises:

7 adding the process identifier of the second process to the process list if the
8 second process is to use the socket object.

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10 26. The computer readable medium of claim 25 wherein the second process is to
11 use the socket object if a socket descriptor created for the socket object is passed from
12 the first process to the second process.

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14 27. The computer readable medium of claim 23 wherein the step of updating
15 comprises:

16 removing the process identifier of at least one of the first process and second
17 process from the process list if the at least one of the first process and second process
18 no longer uses the socket object.

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20 28. The computer readable medium of claim 27 wherein the at least one of the first
21 process and second process no longer uses the socket object if a socket descriptor
22 created for the socket object is removed from the at least one of the first process and
23 second process.

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25 29. The computer readable medium of claim 23 wherein the step of updating
26 comprises:

27 removing the process identifier of at least one of the first process and the
28 second process from the process list if the at least one of the first process and second
29 process expires.

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31 30. The computer readable medium of claim 23 wherein the first process comprises
32 a Sockets Application Program Interface (API) function utilized to create the socket
33 object.

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2 31. The computer readable medium of claim 30 wherein the Sockets API function
3 comprises one of a socket () function, a socketpair () function and an accept ()
4 function.

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6 32. The computer readable medium of claim 23 wherein the creating and updating
7 are performed by an operating system after a computer executes a sockets support
8 program.

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10 33. The computer readable medium of claim 23 wherein the first process and the
11 second process are provided in the same computer system.

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13 34. The computer readable medium of claim 23 wherein the first process and the
14 second process are provided in different computer systems.

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16 35. The computer readable medium of claim 23 wherein the process identifier
17 comprises at least one of a process name, a user name associated with the process
18 name and a process number.

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20 36. A computer readable medium storing a software program that, when executed
21 by a processor of a computer, causes the computer to perform a method comprising::
22 displaying a user interface containing a list of socket objects used for a
23 computer system; and
24 providing a process list for a socket object selected by a user from the list of
25 socket objects, where the process list contains a process identifier for at least one
26 process using the selected socket object.

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28 37. The computer readable medium of claim 36 wherein each of the at least one
29 process using the selected socket object comprises an active process using the socket
30 object.

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1 38. The computer readable medium of claim 36 wherein each socket object in the
2 list of socket objects is associated with a client computer communicating with a server
3 computer.

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5 39. The computer readable medium of claim 36 wherein the process identifier
6 comprises at least one of a process name, a user name associated with the process
7 name and a process number

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